SLIM WRITER
DVD±R/RW

USB 2.0 External Drive

User's Manual

CLASS 1 LASER PRODUCT
APPAREIL A LASER DE CLASSE 1
LASER KLASSE 1
LUOKAN 1 LASERLAITE
PRODUIT LASER
CATEGORIE 1

CAUTION
CLASS 3B VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN.
AVOID DIRECT EXPOSURE TO BEAM.
VORSICHT
KLASSE 3B SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG WENN GEOFFNET. NICHT IN DEN STRAHL SEHEN.
ATTENTION
RADIATION DU FAISCEAU LASER VISIBLES ET INVISIBLES DE CLASSE 3B EN CAS D'OUVERTURE. EVITER TOUTE EXPOSITION AUX RAYONS.

Copyright Statement

It is a criminal offence, under applicable copyright laws, to make unauthorised copies of copyright-protected material, including computer programs, films, broadcasts and sound recordings. This equipment should not be used for such purposes.

FCC Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

FCC Warning Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and the receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FOR EUROPE

CE "The drive is in conformity with the EMC directive and low-voltage directive."

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INTRODUCTION

Features

Accompanying the new DVD storage technology, we are honored to present you a compact and multiformat external drive of USB 2.0 interface: 8X Slim Writer DVD±R/RW.

This Slim Writer frees up precious bay space and offers more backup choices other than acting as a CD-R/RW drive and as a DVD-ROM reader. It supports dual formats of DVD+R/RW and DVD-R/RW enabling excellent compatibility, simple, quick recording of both CD/DVD formats, huge capacity storage, and theater-quality playback.

The bundled package of mastering software offers the creation fun of video, photos, and music editing. You can either record up to 4.7GB, 3 hours of TV shows or movies into high-quality DVD video, or author your own DVD movies – from capture to editing and burning, which both are playable in most DVD players and DVD-ROM drives.

Handy and easy to use, this Slim Writer is an ideal model to enjoy the fascinating DVD entertainment on your desktop and here are some more important features:

Here are some important features of this drive:

- Slim type for moving office use
- USB 2.0 interface, easy to connect USB 2.0 port in Notebook or PC
- 8X DVD+R, 4X DVD-R Write, 4X DVD+RW, 2X DVD-RW Rewrite speed, 8X DVD-ROM Read speed
- 24X CD-R, 24X CD-RW Write/Rewrite speed, 24X CD-ROM Read speed

- Supports writing modes of TAO, DAO, SAO and packet writing
- Supports MultiRead function
- Serves as RPC-2 DVD-ROM Drive
- Smooth DVD playback
- Compatible with most existing DVD-ROM drives and DVD video players
- Bundled with an extensive software package

About USB

USB (Universal Serial Bus), a means of attaching devices to your computer, is basically a standardized intelligent serial connection which provides an expandable, hot-pluggable*[1] interface. Devices suitable for USB range from simple items like mice and keyboards to more complicated devices like printers, MP3 players, and storage devices. One other benefit of USB is plug and play. That is, when you plug the USB device in, it is automatically detected, drivers installed and then ready for operation.

USB 2.0 supports data transfer at up to 480Mbps for high-speed devices. It is backward compatible with USB 1.1*[2] software and peripherals. If your computer doesn't have a built-in USB 2.0 port, you need to install a USB 2.0 PCI host card in your pc for the CD-RW drive to run at USB 2.O speed. Otherwise, this CD-RW drive will run at standard USB speed.

*[1] You can connect and disconnect devices while the computer is running.

*[2] USB 1.1 can transfer data at rates up to 12Mb/s.

System Requirements

For IBM compatible PCs, the system requirements recommended are as follows:

- Pentium III, 850MHz or above with at least 256MB of memory
- Minimum 1GB free Hard Disk space
- Operating system: Microsoft Windows 98SE/ME/2000/XP
- USB 2.0 PCI host card (If there's no USB 2.0 built-in port on board.)

☞ *We recommend that you use motherboards with built-in USB 2.0 connectors. If USB 2.0 host card is used, the reading speed of DVD might be influenced.*

Package Contents

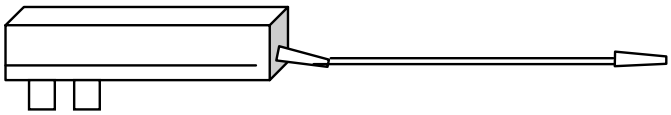
- USB 2.0 external Slim Writer DVD±R/RW
- Power adapter
- USB 2.0 cable
- Application software discs
- Quick Installation Guide

INSTALLATION

Hardware Installation

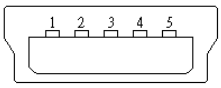
1. Connect the power adapter to the drive.

   External Power

   AC IN 100-240V to DC OUT + 5V

2. Attach the USB 2.0 cable to the mini USB 2.0 connector on the rear of the drive.

   USB Connector 

3. Attach the other end of the USB 2.0 cable to the USB port in your computer. The drive is now ready to use.

   ☞ *If you are installing a USB 2.0 drive, your computer must have a USB 2.0 port to reach top speed. You may experience slower USB 2.0 drive performance if it is connected to USB 1.1.*

Note:

- Be sure to use the USB 2.0 cable & the power adapter (DC IN + 5V) packed with the drive.
- Never plug or unplug in any other USB device while the drive is transferring data. It's likely to loss data.
- It's advisable not to disconnect the drive or unplug the power to the drive while a CD is inserted.

- Don't connect more than two CD-RW drives of USB connections to a single computer.

Driver Installation

Windows Environment

This Slim Writer is a PnP (Plug and Play) device, and Windows ME/2000/XP can **automatically detect** the drive and load the appropriate driver.

For the users who run Windows **98SE**, it is required to install the provided driver included in the burning software disc.

How to install on Windows 98SE

Please follow the steps below for first time installation of the USB 2.0 device. After the successful installation, you can re-connect the device and the system should automatically recognize the attached USB 2.0 Device:

1. Turn on the computer.
2. When the hardware is fully installed, the system will automatically detect the new hardware. A window shown below pops up. Click [**Next**.]

Add New Hardware Wizard
This wizard searches for new drivers for:
USB2.0 Storage Device
A device driver is a software program that makes a hardware device work.
< Back
Next >
Cancel

3. Once the [**Add New Hardware Wizard**] window appears, select [**Search for the best driver for your device**] and then click [**Next**.]

Add New Hardware Wizard
What do you want Windows to do?
Search for the best driver for your device. (Recommended).
Display a list of all the drivers in a specific location, so you can select the driver you want.
< Back
Next >
Cancel

4. Insert the burning software disc.
   Check "**Specify a location**", and browse the disc for the driver: **D:\Win98 USB driver**.
   Click [**Next**.]

Add New Hardware Wizard
Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search.
Floppy disk drives
CD-ROM drive
Microsoft Windows Update
Specify a location:
D:\Win98 USB driver
Browse...
< Back
Next >
Cancel

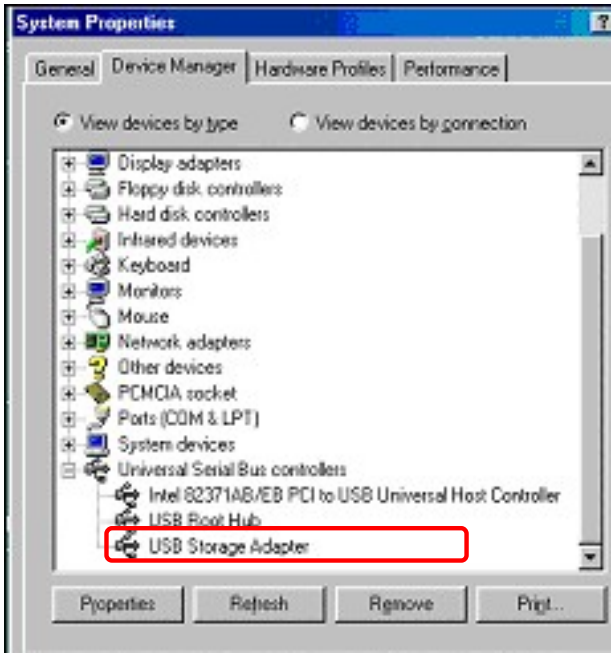
5. Click [**Next**].

Add New Hardware Wizard
Windows driver file search for the device:
USB Mass Storage Device
Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next to continue.
Location of driver:
D:\Win9~ive\CY_FX_AT.INF
< Back
Next >
Cancel

6. Click [**Finish**] and the installation is completed.

Add New Hardware Wizard
USB Mass Storage Device
Windows has finished installing the software that your new hardware device requires.
< Back
Finish
Cancel

7. You can check the driver in [**System**] under [**Control Panel**]. The driver [**USB Storage Adapter**] icon is shown below:



Application Software

Installation Under Windows Environment

1. Insert the application CD and the installation program will run automatically. Then follow the on-screen procedures.

   Or

2. Run**:\setup.exe** on the application CD.

Burning Software

The bundled recording software gives you the complete solution for making audio/data CD/DVDs. With the user-friendly interface, it guides you through the creation and backup of files/photos/video/music from your computer to a recordable disc. Combining with the card reader capabilities, no matter you are a novice or an experienced user; you can enrich your digital life with this best recording tool.

DVD Playback Software

The DVD playback software comes with leading video and audio technologies to deliver the highest sound and visual effect possible on the PC. Meanwhile, it offers feature-rich navigation controls for an interactive and tailored DVD movie viewing experience. You can enjoy the wide range of educational and entertaining DVD titles with theater quality.

DVD Region Coding

Region Playback Control Management

All DVD Video Playback systems have “Region Playback Control” management (RPC) which is required by Hollywood movie industry and defined by DVD Forum. This includes DVD-Video players and PC systems with DVD-Video capability. You can only play DVD-Video discs with the same region code as your DVD-Video Playback system.

As for DVD-ROM drives, one kind of the DVD-Video Playback system, there are 2 types:

RPC Phase 1 (as RPC1): RPC1 drives do not have built-in hardware support for region management. DVD-ROM drives of this kind don’t play a part in controlling the playback region. It solely depends on the decoder.

RPC Phase 2 (as RPC2): RPC2 drives maintain the region change count information in hardware, and in general, the region of such drives can be changed up to 5 times by the end users under some software decoder (e.g. PowerDVD).

And referring to the region codes, there are 6 regions worldwide, and normally, there is a region code mark on the package of DVD titles. :

Region **1**: Canada, US

Region **2**: Japan, Europe, South Africa, and Middle East (including Egypt)

Region **3**: Southeast Asia and East Asia (including Hong Kong)

Region **4**: Australia, New Zealand, Pacific Islands, Central America, Mexico, South America, and the Caribbean

Region **5**: Eastern Europe, Indian subcontinent, Africa, North Korea, and Mongolia

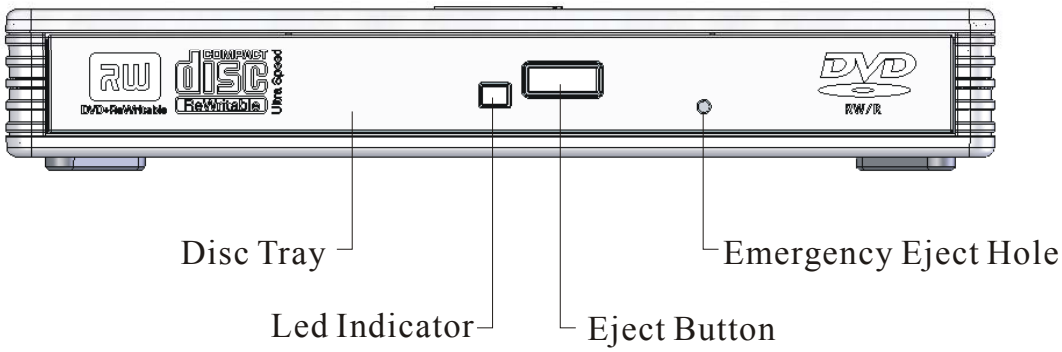
Region **6**: China

About This Drive

This drive is also a RPC2 DVD-ROM drive and according to DVD-Forum, PC chip must be designed into DVD-ROM drives to record how many times a user has changed the region code. The first region code will depend on the DVD title you play and you are allowed to modify the region code 5 times (including the initial one). After the fifth alteration, the region code will be locked and only those DVD titles of the same region code could be played afterwards, so set the code carefully.

OPERATION & CONNECTION

Front Panel



1. Disc Tray

This is the tray for the disc. Place the disc in the tray, then press the Close/Eject button or gently push the tray to close it.

2. LED Indicator

While the tray goes in/out, the LED flashes Green and it's off when the drive detects no disc inserted. If there is a disc in the drive, the LED lights Green.

When the drive is reading/writing data, the LED flashes Green as well.

3. Close/Eject button

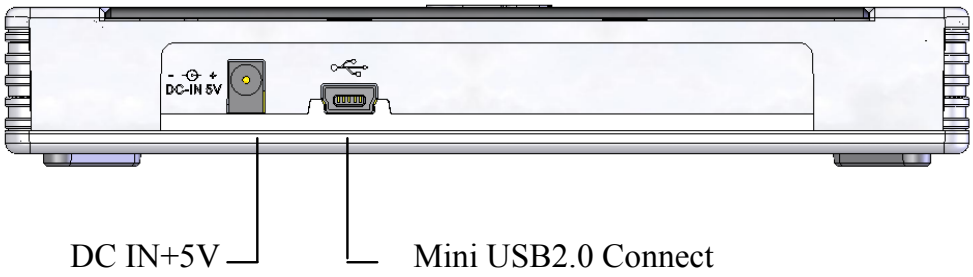
This button opens and closes the disc tray. If the tray is closed, pressing the button will eject it.

4. Emergency Eject Hole

When the Eject/Close button can't work properly and the disc tray can't be opened, you can insert a paper clip or other small rod into this hole for manual ejection. Please make sure to power off the system before you do that.

☞ ***Note:*** *The design of front panel is subject to change without notice.*

Rear View



1. **DC Jack**

   DC IN +5V

2. **Mini USB 2.0 Connector**

   Connecting with USB 2.0 cable.

TECHNICAL DATA

Interface	USB 2.0
Disc Data Capacity	**DVD+/-R, DVD+/-RW:** Single layer 4.7GB **CD-R/RW:** 74min/650MB, 80min/700MB
Media supported for Writing	DVD+R, DVD-R, DVD+RW, DVD-RW, CD-R, CD-RW
Writing Formats	DVD+/-R, DVD+/-RW, DVD-ROM, DVD-Video CD-DA, CD-ROM, CD-ROM XA, CD-Extra, CD-I, Mixed-Mode CD, Video CD, Photo CD, CD-Text, Bootable CD, Multi-Session
Writing modes	Track at Once, Disc at Once, Session at Once, Multi-Session, Packet Writing
Writing Speed	**DVD+R:** 2.4X, 4X, 8X **DVD-R:** 2X, 4X **DVD+RW:** 2.4X, 4X **DVD-RW:** 1X, 2X **CD-R:** 8X, 16X, 24X **CD-RW:** 4X, 10X, 16X, 24X
Reading Compatibility	CD Audio, CD-Extra, CD-ROM/XA, CD-I, Photo CD, Video CD, CD-Text, DVD-ROM, DVD+/-R, DVD+/-RW
Reading Speed	**CD:** max.24X **DVD-5:** max. 8X **DVD-9:** max. 6X

Data Transfer Rate	**CD** -- **Read** CD-ROM/CD-R: 3600KB/sec (up to 24X) CD-RW: 3600KB/sec (up to 24X) **CD** -- **Write** CD-R: 3600KB/sec (up to 24X) CD-RW: 3600KB/sec (up to 24X) **DVD** -- **Read** DVD-ROM: 10816KB/sec (up to 8X) **DVD** -- **Write** DVD+R: 10816KB/sec (up to 8X) DVD-R: 5408KB/sec (up to 4X) DVD+RW: 5408KB/sec (up to 4X) DVD-RW: 2704KB/sec (up to 2X)
Access time	**DVD:** 140ms (8X) **CD:** 130ms (24X)
Data buffer	2MB
Disc loading	Tray (Electrical release/manual load)
Dimensions	Height: 21.0 ± 1mm Width: 140.0 ± 1mm Depth: 152.0 ± 1mm
Weight	400g
Mounting Method	Horizontal
Power Requirement	input: AC 100~240V, 50/60Hz output: 5V 2A

APPENDIX

DVD Forum

The DVD Forum is an international organization made up of companies using or manufacturing digital versatile disc (DVD)-related products. The Forum was created in 1995 when ten companies (Hitachi, Matsushita, Mitsubishi, Philips, Pioneer, Sony, Thomson Multimedia, Time Warner, Toshiba Corporation, and Victor) joined for the common purpose of promoting DVD worldwide and establishing standardized formats of each DVD application for the marketplace.

DVD+RW Alliance

The DVD+RW Alliance is a voluntary group of industry-leading personal computing manufacturers, optical storage and electronics manufacturers including Dell, Hewlett-Packard Company, MCC/Verbatim, Philips Electronics, Ricoh Company Ltd., Sony Corporation, Thomson multimedia and Yamaha Corporation. The group seeks to develop and promote a universally compatible, rewritable DVD format to enable true convergence between personal computing and consumer electronics products.

DVD FLLC (Format, Logo, Licensing, Corporation)

DVD Format/Logo Licensing Corp (DVD FLLC) was established in 2000 to handle issuing of the DVD specifications, granting licenses to manufacturers and policing the use of the DVD logos. All manufacturers of hardware, discs and related DVD products must be licensed and first products verified to ensure that all players will play all discs. The correct logos must be used for the appropriate products in the appropriate way.

DVD Formats

DVD Video

Popular format for viewing movies and other visual entertainment with high quality MPEG2 video & digital surround sound. Enables multi-language, multi-subtitling and other advanced user features.

DVD Audio

This audio-only storage format doubles the fidelity of sound effect comparing with a standard CD as well as longer playing times, copy protection and anti-piracy measures…etc.

DVD-ROM (DVD Read Only Memory)

Read-only DVD discs used for storing data and interactive sequences as well as audio and video.

DVD-R (DVD Recordable)

A write-once format used to master DVD Video and DVD-ROM discs. Good for archiving data and recording home movie discs.

DVD-RW (DVD ReWritable)

The DVD Forum's format with a read-write capacity of 4.7GB per side. It can be re-written up to 1000 times. Suitable for backups, DVRs, and movies.

DVD+R (DVD Recordable)

A write-once format. Good for archiving data and recording DVD movies.

DVD+RW (DVD ReWritable)

The DVD+RW Alliance's fast, 1000-times-rewritable format. Excellent for backups, good for movies, real-time video recording & random data burning

DVD-RAM (DVD Random Access Memory)

The DVD Forum's 100,000-times-rewritable format. Suitable for backups and DVRs.

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